

SANITARY PRESSURE REDUCING VALVE In-line design P-173

DESCRIPTION

The ADCA P-173 series **direct acting, spring-loaded diaphragm sensing**, pressure reducing valves are designed for use with clean steam, compressed air, water and other gases or liquids compatible with the construction materials.

MAIN FEATURES

Compact in-line design.
Completely machined from barstock material, no castings or forgings are used on the standard version.
No rising stem.

STANDARD SURFACE FINISH

Internal wetted parts: $\leq 0,51$ micron Ra – SF1.
External : $\leq 0,76$ micron Ra – SF3.
Other surface conditions see IS PV20.00-Technical information.
Ultrasonic cleaning.

OPTIONS:

Leakage line connection 1/8" (captured vent).
Different soft valves for liquids and gases.
Lock system, allows clean-in-place (CIP) and sterilization-in-place (SIP) operations with valve in line.
With or without bottom drain connection.

USE:

Clean steam, compressed air, water and other gases and liquids compatible with the construction.

AVAILABLE MODELS:

P-173

SIZES:

1 1/2", 2" ; DN32 – 50.

OUTLET SPRING RANGES:

0,8 – 1,5 bar; 1 – 3 bar; 1,5 – 5 bar.

CONNECTIONS:

Sanitary clamps or others on request.

PACKAGING:

Assembling and packaging in a clean room certified according to ISO 14644-1.
The product is end capped and vacuum sealed with recyclable plastic film to avoid contamination.

INSTALLATION:

Horizontal installation. Inlet vertical and horizontal outlet angle connection. See IMI.

ORDER REQUIREMENTS:

Type of fluid.
Maximum operating temperature.
Inlet pressure and required outlet pressure
Capacity (maximum and minimum).



CE MARKING (PED - European Directive)	
PN 16	Category
1 1/2"-2"; DN32 to DN50	SEP

CAPACITIES

Valve Size	BPE			DIN			ISO		
	1 1/2"	2"	2" *	40	50	50 *	32	40	40 *
KVs (m3/h)	5,3	5,5	8,5 *	5,3	5,5	8,5 *	5,3	5,5	NA

* Limited to a maximum 4 bar inlet pressure.

LIMITING CONDITIONS

Valve model	P-173
Body design conditions	PN 16
Max.upstream pressure	8 bar 4 bar*
Max.downstream pressure	5 bar
Min.downstream pressure**	0,8 bar
Max.design temperature ***	150 °C

* See capacity table.

** For tight shut off, with regulating spring relaxed, ensure a minimum 0,2 bar downstream pressure.

*** Other on request.

DIMENSIONS (mm) ASME BPE

SIZE	A*	B	B1	C	D	d1	d2	E	F	H	WGT. Kg
1 1/2"	170	113	76	199	130	50,5	22,1	90	50,5	34,8	9,1
2"	170	119	82	205	130	50,5	22,1	90	64	47,5	9,3

DIMENSIONS (mm) DIN

SIZE DN	A*	B	B1	C	D	d1	d2	E	F	H	WGT. Kg
40	170	113	76	199	130	50,5	22,1	90	50,5	38	9
50	170	119	82	205	130	50,5	22,1	90	64	50	9,2

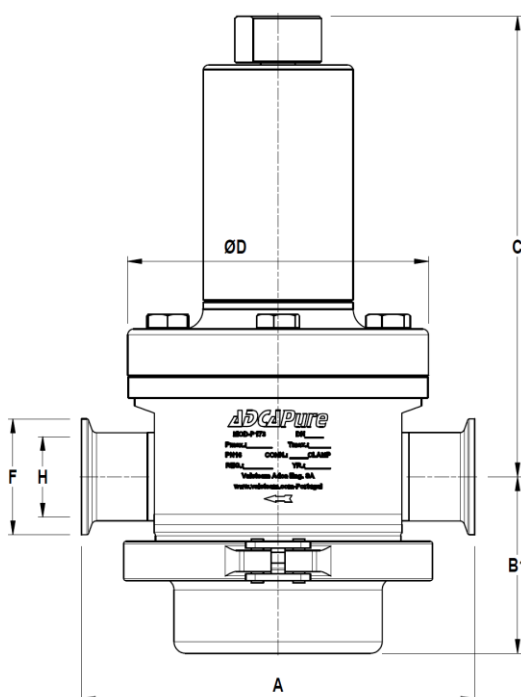
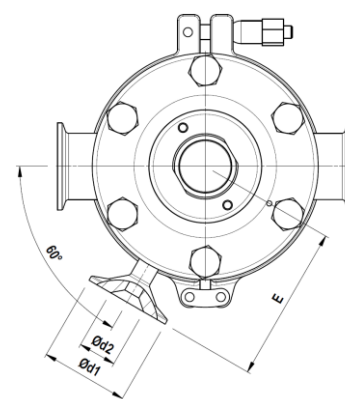
Clamp ferrules DIN 32676 Series A; Tube weld DIN 11866 Series A (DIN 11850 Series 2)

DIMENSIONS (mm) ISO

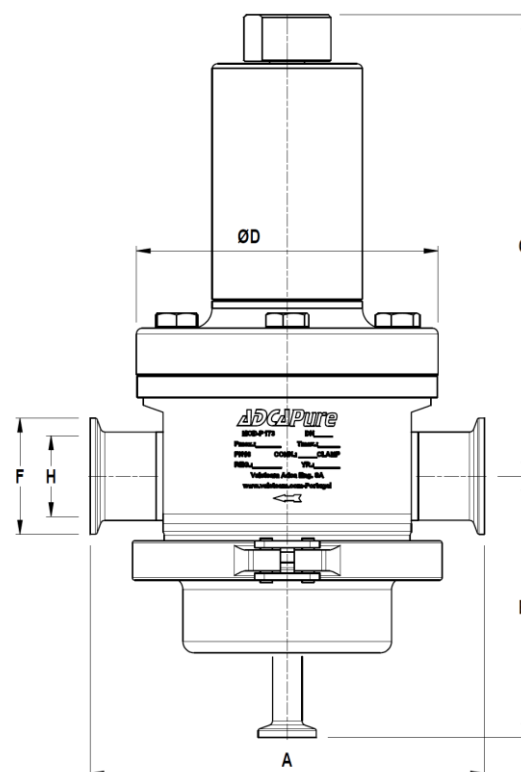
SIZE DN	A*	B	B1	C	D	d1	d2	E	F	H	WGT. Kg
32	170	113	76	199	130	50,5	22,1	90	64	38,4	9
40	170	119	82	205	130	50,5	22,1	90	64	44,3	9,4

Clamp ferrules DIN 32676 Series B; Tube weld DIN 11866 Series B (ISO 1127 Series 1)

* Special versions or non-standard sanitary clamp ferrules are available on request, both for the inlet/outlet and pressure gauge connection.

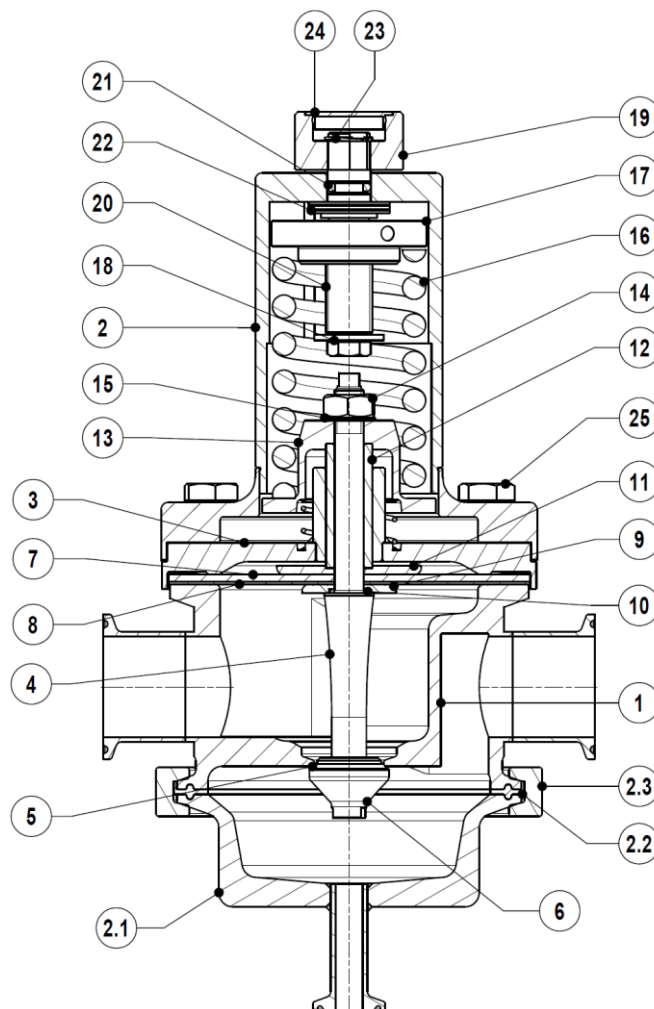


Without bottom connection.

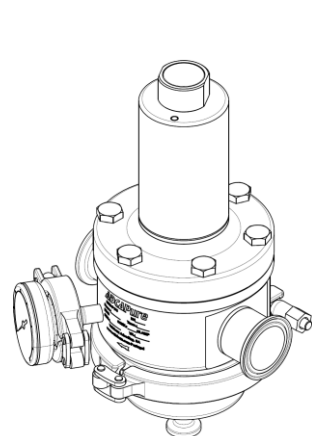


With bottom connection for condensate drainage.

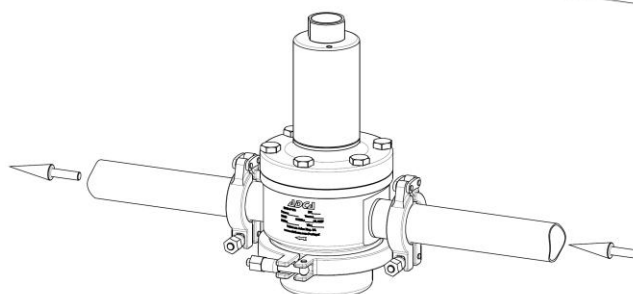
MATERIALS		
POS.	DESIGNATION	MATERIAL
1	Valve body	AISI316L / 1.4404
2	Cover	AISI316L / 1.4404
2.1	Bottom cover	AISI316L / 1.4404
2.2	Gasket	PTFE/TFM® Envelope gasket
2.3	Safety clamp	AISI316 / 1.4401
3	Centering plate	AISI316L / 1.4404
4	* Valve stem	AISI316L/1.4404
5	* Soft plug	EPDM; PTFE **
6	* Valve plug	AISI316L / 1.4404
7	* Upper diaphragm	EPDM;VITON**
8	* Lower diaphragm	PTFE
9	Diaphragm plate	AISI316L / 1.4404
10	* O-ring	EPDM
11	Diaphragm plate	AISI316L / 1.4404
12	Stem guide	AISI316 / 1.4401
13	Spring plate	AISI316 / 1.4401
14	Nut	St.Steel A2 - 70
15	Washer	AISI316 / 1.4401
16	* Adjustment spring	AISI 302 / 1.4300
17	Top spring plate	AISI316 / 1.4401
18	Retaining washer	St.Steel A2 - 70
19	Regulating nut	AISI316L / 1.4404
20	Adjustment screw	AISI304 / 1.4301
21	O-ring	EPDM
22	Bearing	Corrosion res. Steel
23	Ext. bowed shaft ring	Stainless steel
24	Cover nut	Plastic
25	Bolts	A2



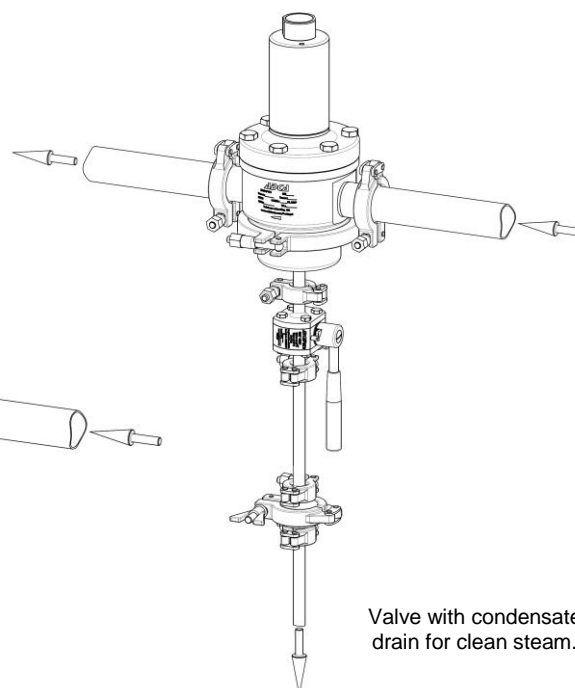
* Available spare parts; **Others according to the fluid
 FDA/USP Class VI seals certificate on request
 Viton diaphragm only with FDA approval (Pos.7)



Pressure gauge connection.
(Optional)



Valve without bottom drain for clean gases.



Valve with condensate drain for clean steam.